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ABSTRACT

This directory lists 127 School System Projects for 1975-76 assisted by grants from the National Science Foundation. These projects are directed at bringing about specified curriculum or course changes or improvements in designated classrooms through the direct cooperation of colleges and universities and school systems. Thumbnail descriptions of individual projects are given. Projects concerned primarily with secondary school curricula are grouped in the first section; those devoted primarily to elementary school curricula are listed in the last section; those treating both are catalogued in the intervening section. (Author/FB)

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School System Projects Directory

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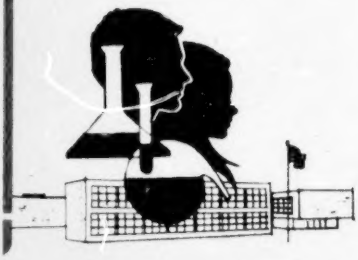

Division of Pre-College Education in Science

National Science Foundation
Washington, D.C. 20550

SE 018 942

PRE-COLLEGE INSTRUCTIONAL IMPROVEMENT IMPLEMENTATION PROGRAM

SCHOOL SYSTEM PROJECTS 1975-76

This Directory lists 127 School System Projects for 1975-76 assisted by grants from the National Science Foundation. Approximately $4.1 million was granted to these projects to assist in the training of nearly 14,000 educational leaders in science, mathematics, and social science.

The National Science Foundation supports a broad variety of activities aimed at improving education in science, mathematics, and social science. At the elementary and secondary school levels, the Foundation's activities are oriented toward two general goals: (1) the development of science literacy, that is, improving the capacity of children to understand the concepts and applications of science and their implications, and (2) the improvement of education for those likely to choose careers in science. To these ends the Foundation encourages and supports the development of carefully designed course materials intended to help meet the curriculum needs of the nation's schools. It also supports a broad range of implementation activities to assist administrators, supervisors, master teachers, and other educational leaders (including science education specialists at the college level) in becoming acquainted with these and innovative materials developed by others, for curriculum decision-making and ultimately classroom adoption purposes.

Implementation projects are supported in a variety of formats so that a broad spectrum of needs may be addressed. For administrative

purposes, projects are classified according to the target group directly affected. Since the target may consist of school systems, classroom teachers, or curriculum decision-makers or specialists, projects are categorized as (1) School System Projects, (2) Teacher Projects, (3) Leadership Specialist Projects, respectively.

School System Projects are directed at bringing about specified curriculum or course changes or improvements in designated classrooms through the direct cooperation of colleges and universities and school systems willing to commit funds, personnel, and other resources in effecting these changes.

Teacher Projects likewise are intended to bring about classroom change or improvement through effective teacher utilization of new instructional materials or practices. However, unlike School System Projects, participation is not necessarily restricted to personnel from a cooperating school system.

Leadership Specialist Projects are designed for specialized educational personnel, such as master teachers, department heads, principals, supervisors, college faculty, state department of education staff members, superintendents, curriculum directors, and others who influence curriculum decisions and lead implementation efforts. Some of these projects are designed primarily as "information conferences" to provide authentic information to school decision-makers (but also to others, such as college education personnel) about new materials, their characteristics and uses and their costs. Others are designed primarily to assist science educators (at the college level or at state and local supervisory levels) in acquiring in-depth acquaintance with specific

curricula so that they can train local teachers to teach those curricula effectively.

Separate Directories have been published listing Teacher-Centered Projects and Leadership Specialist Projects.

In general, the design of a system project is a detailed plan involving funds, personnel, materials, or other resources that will guarantee effective utilization of national curricula in the classrooms targeted for implementation. System project plans may vary and include elements found in Leadership Specialist or Teacher-Centered Projects. However, typical elements center on: (1) expressed commitment on the part of school systems and associated colleges to utilize specified national curricula, (2) summer and/or academic year training in requisite subject matter and appropriate teaching techniques, (3) marshalling of resources from within and beyond the schools that will guarantee successful implementation, and (4) development of leadership and allocation of resources that will ensure continued expansion and maintenance of the program beyond the funding period.

The NSF grants in support of School System projects provide funds to cover instructional costs and funds to assist participants in meeting expenses associated with their participation, such as room, board, and travel. The participant funds represent a contribution toward enabling individuals to take part in a project and these funds may or may not cover the full costs of participation. In any event, total reimbursement from grant funds may not exceed $100 per week.

Thumbnail descriptions of the individual projects are given on the following pages. Projects concerned primarily with secondary school curricula are grouped in the first section; those devoted primarily to elementary

school curricula are listed in the last section; those that treat both elementary and secondary curricula are catalogued in the intervening section. More detailed information concerning any specific project can be obtained by writing to its Project Director at the address given.

Each project provides its own application instructions and materials. Because these projects are designed to assist specific schools, teacher-participants are selected from these schools. Teachers seeking information should therefore communicate with the individual project directors, not with the National Science Foundation.

SECONDARY PROJECTS

CALIFOkNIA

California State University, Fullerton, Fullerton, California 92634; *Intermediate Science Curriculum Study (ISCS)*; academic year 1975-76: continuous; 30 in-service and pre-service teachers from Los Angeles City Unified School District. The project will involve the selection and education of inner-city science teachers for junior high schools and the in-servicing of district teachers in the ISCS program. Dr. George C. Turner, Department of Science Education.

FLORIDA

Florida Institute of Technology, Melbourne, Florida 32901; *BSCS Invitations to Discovery*; summer: 6 weeks, June 23—August 1, 1975; academic year 1975-76: 9 meetings; 35 key instructional personnel and teachers from Brevard, Orange, Indiana River and Polk Counties. Mr. Robert F. Richmond, Department of Science Education.

University of South Florida, Tampa, Florida 33620; *Biological Sciences Curriculum Study (BSCS) Environmental Modules*; summer: 10 evening meetings plus independent investigation, June 23—July 18, 1975; academic year 1975-76: group meetings and on-site visits; 27 teachers from Hillsborough County, Highlands County, Pasco County, and Pinellas County. Dr. H. Edwin Steiner, Jr., Department of Curriculum and Instruction.

University of South Florida, Tampa, Florida 33620; *Technology-People-Environment (TPE)*; summer: 3 weeks, July 29—August 16, 1975; academic year 1975-76: 30 meetings, 10 each quarter; 30 experienced teachers of TMMW materials from Palm Beach, Broward, Dade, Hillsborough, Pinnellas, Sarasota, Lee, Highland, and Breward Counties. A three-week workshop for retraining leadership teachers of *The Man-Made World (TMMW)* in the *Activities Approach (TPE)* followed by a 30-week program in which these leadership teachers will assist in in-service activities. Dean E. W. Kopp, College of Engineering.

GEORGIA

Georgia State University, Atlanta, Georgia 30303; *Intermediate Science Curriculum Study (ISCS)*; summer:

6 weeks, June 16—July 26, 1975; academic year 1975-76: 5 meetings; 40 science teachers, grades 7-9 from Atlanta Public Schools. Dr. Edward C. Lucy, Department of Curriculum and Instruction.

Metropolitan Cooperative Education Service Agency, 771 Lindbergh Dr., N.E., Atlanta, Georgia 30324; *Interdisciplinary Approaches to Chemistry (IAC)*; summer: 3 weeks, July 7—July 25, 1975; two days, July 28—29 (leadership); academic year 1975-76: 5 meetings; 70 chemistry teachers and science coordinators from Atlanta Public Schools, Douglas County, Decatur City Schools, Clayton County Schools, Gwinnett County Schools, Marietta City Schools, plus science coordinators from each CESA in Georgia. Mrs. Shirley L. Davis, Science Coordinator, M-CESA.

IDAHO

University of Idaho, Moscow, Idaho 83843; *The Man-Made World (TMMW)*; summer: 6 weeks, June 9—July 18, 1975; academic year 1975-76: 4 meetings; 20 high school teachers from Idaho and eastern Washington. Dr. A. L. Rigas, Department of Electrical Engineering.

ILLINOIS

Chicago State University, Chicago, Illinois 60628; *Environmental Studies for Urban Youth (ES), Geography in an Urban Age (HSGP)*; summer: 3 weeks, June 23—July 11, 1975; academic year 1975-76: 35 weekly meetings; 37 7th and 8th grade social and physical science teachers from Illinois School Districts #143½ and #144. Dr. Irvin J. Roth, Department of Geography and Urban Studies.

INDIANA

Purdue University, West Lafayette, Indiana 47907; *Selected Portions of Elementary Science Study (ESS), Intermediate Science Curriculum Study (ISCS), Interdisciplinary Science Instructional Strategies (ISIS), Environmental Studies for Urban Youth (ES), Earth Sciences Curriculum Project (ESCP), and Biological Sciences Curriculum Study (BSCS)*; summer: 4 weeks, June 2—June 27, 1975; academic year 1975-76: 25 meetings; 37 administrators and teachers (7-12) from Lebanon Community School Corporation. The final goal of this project is the development of an articulated and sequential science program (K-12) for Lebanon School

Corporation. Dr. Gerald H. Krockover, Department of Geosciences and Education.

IOWA

University of Northern Iowa, Cedar Falls, Iowa 50613; *Intermediate Science Curriculum Study (ISCS)*; summer: 6 weeks, June 9—July 18, 1975; academic year 1975-76: 4 meetings; 51 junior high science teachers and administrators (2 days only) from Alburnette, Algona, Cedar Rapids, Clarion, Fredricksburg, Independence, Postville, South Tama, and Vinton. Prof. Roy Unruh, Department of Physics.

KENTUCKY

University of Louisville, Louisville, Kentucky 40208; *The Man-Made World (TMMW), Technology-People-Environment (TPE)*; summer: 4 weeks, June 16—July 11, 1975; academic year 1975-76: 5 follow-up meetings; 31 secondary science, mathematics, and social studies teachers from Nelson, Bullitt, Daviess, Henderson, and Jefferson Counties and Danville, Henderson, Paducah, and Louisville Independent Schools. Dr. Kiron C. Bordoloi, Department of Electrical Engineering.

Murray State University, Murray, Kentucky 42071; *Ideas & Investigations in Science (IIS), Intermediate Science Curriculum Study (ISCS)*; summer: 6 weeks, June 9—July 18, 1975; 34 junior high teachers from Murray Independent, Paducah Independent, Mayfield Independent, Calloway, McCracken, Carlisle, Marshall, Trigg, Fulton, Crittenden, Ballard, and Hickman Counties. Two three-week workshops will involve in-depth investigation of IIS and ISCS curriculum to assist implementation in grades 7-9. Dr. Marion D. Hassell, Department of Biology.

MICHIGAN

Wayne State University, Detroit, Michigan 48202; *Biomedical Interdisciplinary Curriculum Project (BICP)*; summer: 4 weeks, July, 1975; academic year 1975-76: 12 meetings; 32 teachers of science, mathematics and social studies, grades 11 and 12, from Detroit Public High Schools. The program will introduce BICP materials, demonstrate necessary teaching strategies, provide an overview of the medical and health fields, and provide a hands-on experience with new classroom equipment. Dr. William P. Beres, Department of Physics.

MISSISSIPPI

Mississippi Valley State University, Itta Bena Mississippi 38941; *Biological Science: An Ecological Approach (BSCS Green Version Material)*; summer: 6 weeks, June 9—July 18, 1975; academic year 1975-76: 12 meetings; 30 supervisors and secondary school teachers from Carroll, Holmes, Humphrey, Leflore, Sunflower and Washington Counties. The participants will be trained to teach *BSCS Green Version Material* by using the outdoor environmental laboratories which they are already developing near their respective schools. Dr. S. L. Sethi, Department of Biological Sciences.

MISSOURI

Southwest Missouri State University, Springfield, Missouri 65802; *Geography in an Urban Age (HSGP)*; summer: 8 weeks, June 9—July 31, 1975; academic year 1975-76: 5 meetings; 24 secondary social studies teachers from Springfield, R-12 School Districts. Dr. Russel L. Gerlac.., Department of Geography and Geology.

NEBRASKA

Kearney State College, Kearney, Nebraska 68846; *Intermediate Science Curriculum Study (ISCS)*; summer: 4 weeks, June 23—July 18, 1975; academic year 1975-76: 6 meetings; 25 science teachers from public school systems in Central Nebraska. Dr. Roger L. Carlson, Department of Physical Science.

NEW JERSEY

William Paterson College, Wayne, New Jersey 07470; *The Computer as an Instructional Tool and Modeling Device in Algebra (Colorado Schools Computing Science Project)*; summer: 2 weeks, August 18—August 29, 1975; academic year 1975-76: 6 meetings; 30 Algebra II teachers from 18 high schools in northern New Jersey. Dr. Robert L. Stevenson, Department of Mathematics.

NEW YORK

State University College at Buffalo, Buffalo, New York 14222; *Ideas and Investigations in Science (IIS)*;

academic year 1975-76: 30 Saturdays plus three full-day seminars; 30 junior high school teachers from Niagra Falls Area Schools. The project method of teaching science to disadvantaged students through the use of *Ideas and Investigations in Science* (IIS) will be introduced. Dr. Joseph S. Zingaro, Department of Chemistry.

Queens College, Flushing, New York 11367; *Sociological Resources for the Social Studies (SRSS) with Selections from Patterns in Human History (ACSP)*; summer: 2 weeks, August 18—August 29, 1975; academic year 1975-76: 36 meetings; 50 teachers and/or chairpersons in teams from New York City, Great Neck, Valley Stream, East Meadow and Freeport. Dr. Jack Zevin, Department of Education and Sociology.

Syracuse University, Syracuse, New York 13210; *Intermediate Science Curriculum Study (ISCS)*; summer: 2 weeks, July 7—July 18, 1975; academic year 1975-76: 15 meetings; 25 teachers and paraprofessionals from Syracuse City School District and Syracuse Diocesan Schools. Professor Ann C. Howe, Department of Science Teaching.

NORTH CAROLINA

University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514; *High School Geography Project (HSGP), Sociological Resources for the Social Studies (SRSS), Patterns in Human History (ACSP)*; summer: 5 weeks, June 16—July 18, 1975; academic year 1975-76: periodic on-site workshops; 92 teachers, supervisors, pre-service teachers and MAT candidates from North Carolina, Virginia, and South Carolina. This project is designed to use SRSS, HSGP, and ACSP materials as a basis for revising and reorienting the undergraduate teacher education program in social science education at the host institution and to develop systematic in-service teacher education programs in the cooperating school districts. Dr. Phillip C. Schlechty, School of Education.

University of North Carolina at Charlotte, Charlotte, North Carolina 28223; *Environmental Studies (ES)*; summer: 4 weeks, July 16—August 12, 1975; 30 secondary teachers of science, social science, or mathematics from Albermarle City, Catawba County, Davie County, Iredell County, Monroe City, Mooresville City, Stanly County, Statesville City, and Union County Schools. Dr. James W. Clay, Department of Geography and Earth Sciences.

OHIO

Muskingum College, New Concord, Ohio 43762; *Intermediate Science Curriculum Study (ISCS)*; summer: 4 weeks, July 14—August 8, 1975; academic year 1975-76: 8 meetings; 28 science teachers, supervisors and administrators from East Muskingum, Licking Heights Local, South West Licking, Indian Valley Local, Heath City Schools, Garaway Local, Ridgewood Local, North Fork, and Licking Valley Schools. Dr. E. Rudolph Gerlach, Department of Chemistry.

Notre Dame College, Cleveland, Ohio 44121; *Interdisciplinary Approaches to Chemistry (IAC)*; summer: 6 weeks, June 17—July 27, 1975; academic year 1975-76: 8 meetings; 30 secondary school teachers and supervisors from Akron, Cleveland, East Cleveland, Stark County and Strongsville Public Schools and Cleveland Diocesan Schools. Sister Jeanmarie DeChant, SND, Department of Chemistry.

OKLAHOMA

Oklahoma State University, Stillwater, Oklahoma 74074; *Intermediate Science Curriculum Study (ISCS)*; summer: 4 weeks, June 7—June 30, 1975; academic year 1975-76: 36 meetings; 49 administrators and teachers from Mannford, Bristow, Drumright, Guthrie, Kingfisher, Morrison, Oklahoma City, Okemah, Oologah, Ripley, Stillwater, Tulsa, and Yale School Systems. Dr. Terence J. Mills, College of Education.

PENNSYLVANIA

Drexel University, Philadelphia, Pennsylvania 19104; *Unified Mathematics (SSMCIS)*; summer: 6 weeks, June 27—August 8, 1975; academic year 1975-76: 8 meetings; 75 mathematics teachers from School District of Philadelphia. Participants will be trained to teach Courses 2 through 5 of *SSMCIS Unified Mathematics*. The project will stress methods of justification along with mathematical content. Professor John H. Staib, Department of Mathematics.

Indiana University of Pennsylvania, Indiana, Pennsylvania 15701; *Intermediate Science Curriculum Study (ISCS)*; summer: 1 week (administrators), June 23—June 25, 1975; summer: 4 weeks (teachers), July 28—August 22, 1975; academic year 1975-76: 4 meetings on IUP cam-

pus and 4 meetings in each school district; 45 administrators, local resource teachers, classroom teachers from Ambridge Area, Avella Area, Elizabeth Forward, Freedom Area, Grove City, Greater Latrobe Area, Laurel, Penn Hills, Warren County and Westmont Hilltop. Dr. David M. Riban, Department of Physics.

SOUTH CAROLINA

University of South Carolina, Columbia, South Carolina 29208; *Geography in an Urban Age (HSGP)*; summer: two 3-week sessions, June 2—July 11, 1975; academic year 1975-76: variable meetings; 30 high school geography teachers primarily from Aiken, Charleston, and Richland #1 School Districts. Using HSGP materials, geography mini-courses or a year-long course will be developed. Dr. Richard G. Silvernail, Department of Geography.

TENNESSEE

University of Tennessee at Chattanooga, Chattanooga, Tennessee 37401; *Intermediate Science Curriculum Study (ISCS)*; summer: 4 weeks, July 14—August 8, 1974; academic year 1975-76: group meetings and school visitations; 30 teachers and administrators from Hamilton County, Tennessee and Whitfield County, Georgia Schools. Dr. Bernard Benson, Department of Education.

TEXAS

Bishop College, Dallas, Texas 75241; *University of Illinois Committee Study Mathematics (UICSM), Ninth Grade Materials*; spring 1975: 2 awareness conferences, February 28 and March 14, 1975; summer: 6 weeks, June 16—July 25, 1975; academic year 1975-76: 18 meetings; 60 administrators, supervisors, and teachers from Areas I and III of Dallas Independent School District. Dr. Argelia Velez Esquivel, Department of Mathematical Sciences.

North Texas State University, Denton, Texas 76203; *Intermediate Science Curriculum Study (ISCS)*; summer: 3 weeks, July 14—August 1, 1975; academic year 1975-76: 3 full-day meetings plus classroom visitations; 25 teachers from Irving and Lewisville Independent School Districts. Dr. H. Dale Luttrell, Department of Education.

UTAH

Utah Academy of Sciences, Arts and Letters; *Secondary School Mathematics Curriculum Improvement Study (SSMCIS)*; summer: 6 weeks, June 16—July 25, 1975; academic year 1975-76: 4 meetings; 128 teachers from 19 school districts in Utah. Dr. Ted Wight, Department of Mathematics, Bringham Young University, Provo, Utah 84602.

VIRGINIA

College of William and Mary, Williamsburg, Virginia 23185; *Algebra-Trigonometry with Computer Programming (Colorado Schools Computing Science Project)*; summer: 2 weeks, June 10—June 21, 1975; academic year 1975-76: 3 meetings; 35 teachers from Fairfax, Chesterfield, Henrico, and Richmond Schools. Dr. S. Stuart Flanagan, School of Education.

WASHINGTON

Seattle Pacific College, Seattle, Washington 98119; *Algebra and Trigonometry with Computer Programming (Colorado Schools Computing Science Project)*; summer: 2 weeks, August 11—August 22, 1975; academic year 1975-76: 15 meetings; 30 supervisors and teachers from Bellevue, Everett, Highline, Issaquah, Kent, Lake Washington, Mercer Island, Renton, Seattle and Shoreline Schools. Dr. Max Jerman, Department of Education.

COMBINED SECONDARY/ELEMENTARY PROJECTS

ARIZONA

Arizona State University, Tempe, Arizona 85281; *Intermediate Science Curriculum Study (ISCS), Elementary Science Study (ESS), Science Curriculum Improvement Study (SCIS), Environmental Studies (ES);* summer: one 3-week session, 3 one-week sessions, June—August, 1975; academic year 1975-76: 17 meetings in 55 locations; 55 master teachers in summer, 1,050 K-8 science teachers in academic year from 16 school districts throughout Arizona. This is a state-wide, multi-phase program to assist school districts in identifying and reaching objectives in science curricula exploration and implementation. Dr. Bill W. Tillery, Department of Physics.

ARKANSAS

University of Arkansas at Fayetteville, Fayetteville, Arkansas 72701; *The "Hands-On" Approach to Teaching Mathematics, Games and Activities Selected from Madison Mathematics, Nuffield Foundation Mathematics, Minnesota Science and Math Teaching Project (MinneMAST), UICSM Mathematics;* summer: 6 weeks, June 2—July 11, 1975; academic year 1975-76: 32 meetings; 1000 mathematics teachers (grades K-12) from the state of Arkansas. This is a program of in-service classes, summer classes, workshops, and consultant services designed to implement the use of mathematics games and activities in teaching secondary school mathematics. Summer workshops will be held in Little Rock, Fayetteville, and Monticello. Dr. William R. Orton, Department of Mathematics.

DISTRICT OF COLUMBIA

Smithsonian Institution, Washington, D.C. 20560; *Outdoor Biology Instructional Strategies (OBIS);* program dates: February 1, 1975— February 1, 1976; 47 teachers, camp directors, codirectors, and recreation staff from Anne Arundel County Public Schools, Area 1, and Anne Arundel County Recreation Department. Dr. John H. Falk, Coordinator of Education, Chesapeake Bay Center for Environmental Studies, RR4, Box 622, Edgewater, Maryland 21037.

FLORIDA

Florida State University, Tallahassee, Florida 32306; *Social Science Laboratory Units (SSLU), Sociological Resources for the Social Studies (SRSS), American Political Behavior (APB)*; summer: 4 weeks, July 7—August 1, 1975; academic year 1975-76: 10 meetings; 40 elementary and secondary teachers from Gadsden County. There will be two two-week phases, one phase for elementary teachers (SSLU) and the second for secondary (SRSS-APB). Each teacher group will be trained to incorporate relevant portions of the respective curricula into their own curriculum. Dr. William D. Reder, Program of Science and Human Affairs Education, Division of Instructional Design and Personnel Development.

GEORGIA

Georgia State University, Atlanta, Georgia 30303; *Unified Science and Mathematics for Elementary Schools (USMES), Secondary School Mathematics (SSM)*; summer: 7 weeks, June 9—July 25, 1975; academic year 1975-76: 32 meetings for summer participants; 10 meetings for 300 additional teachers; 60 elementary and secondary teachers, administrators, and supervisors from Fulton County School System. The main purpose of this project is to implement real-world problem-solving programs into both elementary and secondary schools. The main agents for this implementation project will be specially trained instructional teams. Dr. John P. Downes, Department of Mathematics and Curriculum and Instruction.

North Georgia Cooperative Educational Service Agency, P.O. Box 424, Ellijay, Georgia 30540; *Science: A Process Approach (S-APA), Intermediate Science Curriculum Study (ISCS)*; summer: 2 weeks, August 11—August 22, 1975; academic year 1975-76: 13 meetings; 58 elementary and junior high school teachers from Fannin County and Pickens County. Mr. W. L. Carmichael, Science Consultant.

INDIANA

Ball State University, Muncie, Indiana 47306; *Elementary Science Study (ESS)*; summer: 2 weeks, June 9—June 20, 1975; academic year 1975-76: 6 workshops/conferences; 24 special education teachers and administrators from Delaware County. The project is planned for the purpose of modifying, adapting and implementing the *Elementary Science Study* for use with mentally and physically han-

dicapped children. Dr. Daniel W. Ball, Department of Biology.

IOWA

University of Iowa, Iowa City, Iowa 52242; *Science-A Process Approach (S-APA), Elementary Science Study (ESS), Science Curriculum Improvement Study (SCIS), Unified Science and Mathematics for Elementary Schools (USMES), Technology-People-Environment (TPE), Developing Mathematical Processes (DMP), Intermediate Science Curriculum Study (ISCS), Environmental Studies (ES)*; summer: 2 or 3 weeks, June—August, 1975; academic year 1975-76: 15 meetings each semester for each curriculum; 980 administrators and teachers (K-12) from independent school districts in each of 18 regional centers in Iowa. Assistance at the local level will be available to implement national curriculum programs in Iowa schools. Summer sessions will be followed with meetings throughout the academic year with extensive evaluation and assessment models included. Dr. Robert E. Yager, Department of Science Education.

NEW YORK

State University College at Geneseo, Geneseo, New York 14454; *Man: A Course of Study (MACOS), People and Technology (PAT)*; academic year 1975-76: 18 meetings for teachers, 10 for administrators and supervisors; 25 teachers, supervisors and administrators from Batavia City Schools, Livingston, Wyoming, Steuben, and Board of Cooperative Educational Services (2 districts). This is a three-phase dissemination and implementation project for small rural schools around Geneseo, using *Man: A Course of Study* and *People and Technology*. Dr. John G. Herlihy, Department of Educational Studies.

Richmond College, Staten Island, New York 10301; *Science Curriculum Improvement Study (SCIS), Intermediate Science Curriculum Study (ISCS)*; summer: 3 weeks, August 11—August 29, 1975; academic year 1975-76: 12 Saturday meetings; 80 elementary and intermediate school teachers from New York City Community School Board #31. Professor Gerard Solomon, Division of Professional Studies.

OKLAHOMA

Oklahoma State University, Stillwater, Oklahoma 74074; *Our Working World (OWW), Economics in Society (EIS)*;

summer: 3 weeks, June 2—June 20, 1975; academic year 1975-76: 13 meetings; 107 social science teachers and administrators, K-12, from Stillwater School System. Dr. Clayton Millington, Department of Economic Education.

PENNSYLVANIA

University of Pennsylvania, Philadelphia, Pennsylvania 19174; *Intermediate Science Curriculum Study (ISCS), University of Illinois Committee on School Mathematics (UICSM), Man: A Course of Study (MACOS);* summer: 6 weeks, June 30—August 8, 1975; 48 middle school teachers (5-8) from Greater Delaware Valley. The summer program is the conclusion of a 14-month program for the 48 participating teachers. During this six-week program, the participants work with middle school children in implementing the lessons from the three curricula. Dr. Kenneth D. Goerge, Graduate School of Education.

VIRGINIA

Madison College, Harrisonburg, Virginia 22801; *UICSM Motion Geometry, Madison Project Mathematics, Nuffield Project Mathematics, School Mathematics Study Group (SMSG);* summer: 4 weeks, June 11—July 16, 1975; academic year 1975-76: 24 meetings; 30 teachers and supervisors from Clarke and Frederick Counties, and Winchester (city), Virginia and Berkeley and Jefferson Counties, West Virginia. The purpose of this program is to train teachers to select and utilize nationally-recognized curricula; to utilize laboratory techniques; to develop a sequence of supplementary instructional materials for classroom use; and to serve as specialists, demonstration teachers and resource persons. Dr. Charles R. Neatrour, Department of Education.

University of Virginia, Charlottesville, Virginia 22903; *Science: A Process Approach (S-APA), Elementary Science Study (ESS), Science Curriculum Improvement Study (SCIS), Developing Mathematical Processes (DMP), Project Physics Course (PPC), Introductory Physical Science (IPS), Earth Science Curriculum Project (ESCP);* summer: 4 weeks, June 17—July 12, 1975 for elementary teachers, July 15—August 9, 1975 for secondary teachers; 8 weeks, June 17—August 9, 1975 for supervisory leadership trainees; academic year 1975-76: 20 meetings; 363 (63 summer, 300 academic year) elementary and secondary school teachers from Washington County, Roanoke-Alleghany County, Lynchburg,

Chesterfield-Henrico-Richmond, Hampton-Newport News-Virginia Beach, and Albemarle County Schools, Dr. Ertle Thompson, Department of Science Education.

ELEMENTARY PROJECTS

ALABAMA

University of North Alabama, Florence, Alabama 35630; *Elementary Science Study (ESS)*; summer: 2 weeks, August 4—August 15, 1975; academic year 1975-76: 7 meetings; academic year 1976-77: 7 meetings; 55 teachers and administrators from Colbert County School System. The main objective of this project is to move all elementary teachers in Colbert County schools in the direction of inquiry teaching. This will be achieved using a summer (1975) workshop featuring video-taped microteaching of ESS, two years of in-service sessions and participant demonstration lessons in all schools. Dr. Hollis C. Fenn, Department of Physics and General Science.

ARKANSAS

University of Arkansas at Little Rock, Little Rock, Arkansas 72204; *Science Curriculum Improvement Study (SCIS)*; summer: 3 weeks, July 14—August 1, 1975; academic year 1975-76: 9 meetings; 32 teachers from public and private schools in city of Little Rock or Pulaski County. Dr. Mel W. Fuller, Division of Physical Sciences and Mathematics.

CALIFORNIA

University of California, Davis, Davis, California 95616; *Elementary Science Study (ESS)*; summer: 1 week, August 16—August 30, 1975; academic year 1975-76: 20 meetings; 60 teachers from San Juan Unified School District and the Davis Joint Unified School District. Dr. Victor A. Perkes, College of Letters and Science.

California State College, Bakersfield, Bakersfield, California 93309; *Unified Science and Mathematics for Elementary Schools (USMES)*; summer: 1 week, June 24—June 28, 1975; academic year 1975-76: 3 meetings; 100 elementary teachers from Los Angeles City Unified School District. A cooperative project to assist schools in selected Los Angeles areas to implement USMES materials through a pilot-trial program. The majority of the teachers will be selected from four Los Angeles areas. Dr. Leland F. Webb, Department of Mathematics.

California State College, Bakersfield, Bakersfield, California 93309; *Elementary School Science (ESS)*,

Science - A Process Approach (S-APA), Unified Science and Mathematics for the Elementary School (USMES); summer: 6 weeks, June 16—July 25, 1975; academic year 1975-76: 60 meetings; 50 elementary school teachers who have been previously involved in implementing the above curricula from Kern County. This project is designed to train leadership specialists in elementary school science to assist local schools in their implementation efforts. Dr. David H. Ost, Department of Biology and Science Education.

California State University, Fresno, Fresno, California 93710; *Science—A Process Approach (S-APA)*; summer: 4 weeks, June 16—July 11, 1975; academic year 1975-76: 30 meetings; 80 elementary school teachers and junior high math and science teachers from Fresno City Unified School District and Kings Canyon Unified School District. Elementary and junior high school teachers from Fresno City Unified District and Kings Canyon Unified School District will receive instruction in *Science: A Process Approach* for the intermediate grades (4, 5 and 6 or Parts E, F and G). Participation of junior high school teachers is included so that a continuity can be established between the elementary school science program and that at the junior high school level. Professor Stanley M. Ziegler, Department of Chemistry.

California State University, Fullerton, Fullerton, California 92634; *Science Curriculum Improvement Study (SCIS)*; summer: 3 weeks, July 7—July 25, 1975; academic year 1975-76: 18 meetings; 100 elementary school teachers from Oceanview Elementary School District. Dr. Francis P. Collea, Department of Science Education.

California State University, Northridge, Northridge, California 91324; *Man: A Course of Study (MACOS)*; summer: 4 weeks, July 7—August 1, 1975; academic year 1975-76: 20 meetings; 74 teachers (grades 5 and 6) from Los Angeles City Unified School District, Saugus Union School District, and Palm Springs Unified School District. Dr. Arthur Nichols, Department of Elementary Education.

California State University, Northridge, Northridge, California 91324; *Elementary Science Study (ESS)*; summer: 3 weeks, July 7—July 25, 1975 (July 3—principals' meeting); academic year 1975-76: 8 meetings; 48 teachers and principals from Newhall, Saugus Union, and Sulphur Springs Union School Districts. Dr. Edward P. Labinowich, Department of Elementary Education.

COLORADO

Fort Lewis College, Durango, Colorado 81301; *Navajo Area Mathematics Curriculum Guidelines;* summer: 5 weeks, June 2—July 3, 1975; academic year 1975-76: 25 meetings; 130 teachers, administrators, and supervisors from Navajo Area Bureau of Indian Affairs school systems: Chinle, Eastern Navajo, Fort Defiance, Shiprock, and Tuba City. Dr. Richard A. Gibbs, Department of Mathematics.

University of Northern Colorado, Greeley, Colorado 80639; *Science Curriculum Improvement Study (SCIS), Elementary Science Study (ESS), Outdoor Biology Instructional Strategies (OBIS), Individualized Science (IS);* summer: 4 weeks, June 30--July 25, 1975; academic year 1975-76: 10 meetings; 60 principals and elementary teachers from Weld County. Forty elementary teachers and twenty building principals will participate in a four week summer program to receive training as potential portal school building leaders. They will return to their schools and teach approximately 370 teachers and 8,000 children during the 1975-76 school year. Dr. John Hunt, Department of Science Education.

GEORGIA

University of Georgia, Athens, Georgia 30602; *Science—A Process Approach (S-APA II);* summer: 2 days, August 6—7, 1975; academic year 1975-76: 10 meetings; 30 teachers who are serving as resource teachers for S-APA from Gwinnett County. This project is to assist Gwinnett County Schools convert from S-APA I to S-APA II and develop a cadre of local resource personnel who can conduct in-service programs for the program. Dr. W. R. Zeitler, Department of Science Education.

University of Georgia, Athens, Georgia 30602; *Science—A Process Approach (S-APA II);* summer: 3 weeks, July 21—August 8, 1975; academic year 1975-76: 12 meetings; 45 teachers and administrators from Bullock County, Evans County, Screven County, Effingham County, Jefferson County, Candler County, Jeff Davis County, Tattnall County, and Vidalia City Schools. Dr. W. R. Zeitler, Department of Science Education.

Georgia State University, Atlanta, Georgia 30303; *Man: A Course of Study (MACOS);* academic year 1975-76: 10 meetings; 45 sixth grade social studies teachers from Atlanta Public Schools. Each participant will teach MACOS and will train an additional teacher to teach the

curriculum. Dr. Buckley R. Barnes, Department of Curriculum and Instruction.

LaGrange College, LaGrange, Georgia 30240; *Madison Project Mathematics;* summer: 1 week, August 4—August 8, 1975; academic year 1975-76: 8 meetings; 40 teachers and principals from Muscogee County School System. Dr. Richard D. Jolly, Department of Mathematics.

IDAHO

University of Idaho, Moscow, Idaho 83843; *Science - A Process Approach (S-APA);* summer: 3 two-week sessions, June 16—August 1, 1975; academic year 1975-76: 19 meetings; 100 teachers from Coeur d'Alene School District. Dr. Verl G. Garrard, Department of Chemistry.

Idaho State University, Pocatello, Idaho 83209; *Science Curriculum Improvement Study (SCIS);* summer: 3 weeks, June 9—June 27, 1975; academic year 1975-76: 9 meetings; 33 teachers and principals from Idaho Falls, District #91. Dr. M. Jerome Bigelow, Department of Chemistry.

ILLINOIS

University of Illinois, Urbana, Illinois 61801; *Elementary Science Study (ESS), Science Curriculum Improvement Study (SCIS), Science—A Process Approach (S-APA);* academic year 1975-76: monthly workshop-seminars with project staff working full time in schools of Champaign County as science programs are implemented; 62 teachers and administrators from Champaign County. The goal of this project is to implement a science program in each of the 14 participating school districts in Champaign County, Illinois through a program of workshops, leadership training, and setting up model classrooms in the various school districts. Dr. Richard W. Griffiths, Department of Elementary Education.

Illinois State University, Normal, Illinois 61761; *Science Curriculum Improvement Study (SCIS), Elementary Science Study (ESS);* summer: 3 weeks, June 16—July 3, 1975; academic year 1975-76: 10 meetings; 51 teacher-leaders and principals from Bloomington Public Schools. Dr. Thomas C. Fitch, Department of Curriculum and Instruction.

Illinois State University, Normal, Illinois 61761; *Elementary Science Study (ESS);* summer: 3 weeks, June 16—

July 7, 1975; academic year 1975-76: 16 meetings; 24 teachers from Danville Community Consolidated School District #118. Dr. William W. Jones, Department of Curriculum and Instruction.

Olivet Nazarene College, Kankakee, Illinois 60901; *Elementary Science Study (ESS);* summer: 3 weeks, August 4—August 22, 1975; academic year 1975-76: 32 meetings; 52 teachers, principals and a curriculum director from Bradley Elementary School District 61. The project will involve the training of key teachers, in-service training sessions for the classroom teacher, and the development of a "Teacher Interaction Center". Dr. Harry Fulton, Department of Science Education and Biology.

Southern Illinois University, Carbondale, Illinois 62901; *Science Curriculum Improvement Study (SCIS);* summer: 1 week, August 18—August 22, 1975; academic year 1975-76: 5 one-day academic year workshops; 42 teachers and administrators from Harrisburg Elementary School District. Dr. Audrey N. Tomera, Department of Elementary Education.

Southern Illinois University-Edwardsville, Edwardsville, Illinois 62025; *Science Curriculum Improvement Study (SCIS);* summer: 3 weeks, June 16—July 3, 1975; academic year 1975-76: 30 meetings; 30 teachers, grades 4-6, from Roxana and Wood River-Hartford. Professor Thomas O. Baldwin, Department of Physics.

INDIANA

Indiana University, Bloomington, Indiana 47401; *Elementary Science Study (ESS), Science—A Process Approach (S-APA), Science Curriculum Improvement Study (SCIS);* summer: 6 weeks, June 16—August 22, 1975 (for teacher-leaders); summer: 4 weeks, July 28—August 22, 1975 (for classroom teachers); academic year 1975-76: 4 meetings; 47 teacher-leaders and 40 classroom teachers from Monroe County Community School Corporation. This is a field-based project designed to prepare in-service teachers for supervisory roles in a cooperative pre-service teacher preparation program. Both the pre-service and in-service programs will focus on the implementation of ESS, SAPA, and SCIS and the acquisition of skills necessary to create individualized learning situations. Dr. Hans O. Anderson, Department of Science Education.

Purdue University, Lafayette, Indiana 47907; *Science - A Process Approach (S-APA), Elementary Science Study*

(ESS); summer: 4 weeks, July 7—August 1, 1975; academic year 1975-76: 25 meetings; 50 administrators, principals, elementary and middle school teachers from West Lafayette School Corporation. Dr. Harold H. Jaus, Department of Science Education.

IOWA

University of Northern Iowa, Cedar Falls, Iowa 50613; *Elementary Science Study (ESS)*; summer: 3 weeks, June 9—June 27, 1975 at UNI; July 14—August 1, 1975 in Algona; August 4—August 22, 1975 in Charles City; academic year 1975-76: 6 meetings plus 2 days/week consulting visits and in-service workshops during fall semester; 130 teachers, supervisors, administrators and pre-service elementary teachers from Algona, Burt, Cedar Falls, Charles City, Clarksville, Corwith-Wesley, Dike, LaPorte City, Nashua, New Hampton, Osage, Plainfield, Waverly-Shell Rock, Rudd-Rockford-Marble Rock School Districts. Dr. Daryl Smith, Department of Biology.

KANSAS

University of Kansas, Lawrence, Kansas 66045; *Science Curriculum Improvement Study (SCIS)*; summer: 4 weeks, July 7—August 1, 1975; academic year 1975-76: two full days; 40 teachers and principals from Lawrence, Seaman, Basehor, Holton, Auburn-Washburn, Eudora, Eskridge-Harveyville and Turner School Districts. Dr. William S. LaShier, Jr., Department of Curriculum and Instruction.

Wichita State University, Wichita, Kansas 67208; *Unified Science and Mathematics for Elementary Schools (USMES)*; summer: 2 weeks, June 16—June 27, 1975; academic year 1975-76: 7 meetings; 100 in-service and pre-service teachers, grades K-8, and administrators from USD 259 of Wichita. Dr. Joe D. Payne, Department of Instructional Services.

KENTUCKY

University of Kentucky, Lexington, Kentucky 40506; *Madison Mathematics Project, Nuffield Mathematics Project*; summer: 4 weeks, June 10—July 8, 1975; academic year 1975-76: 6 meetings; 30 teachers and principals from Fayette County Public Schools. Dr. Donald B. Coleman, Department of Mathematics.

LOUISIANA

Louisiana State University at Eunice, Eunice, Louisiana 70535; *Science - A Process Approach (S-APA);* summer: 4 weeks, June 2—June 27, 1975; academic year 1975-76: 8 meetings; 60 principals (for three days during summer program) and teachers, grades 3-4, from St. Landry Parish School System. Dr. Lois T. Wales, Department of Science.

University of New Orleans, New Orleans, Louisiana 70122; *Elementary School Science (ESS);* summer: 1 week, August 18—August 22, 1975; academic year 1975-76: 18 meetings; 29 teachers; grades 3-6, from Orleans Parish Public Schools. This project provides classroom teachers and prospective elementary teachers the training and opportunity for a cooperative field experience in the implementation of selected ESS units in 10 elementary schools in Orleans Parish. Dr. Paul D. Beisenherz, Department of Elementary and Secondary Education.

Northeast Louisiana University, Monroe, Louisiana 71201; *Elementary Science Study (ESS);* summer: 4 weeks, June 2—June 27, 1975; academic year 1975-76: 8 meetings; 30 teachers from Monroe City School System. The program is designed to give 30 teachers in-depth experience with the science curriculum. The participants will then be expected to provide leadership throughout the system in improving the science education program. Dr. Robert E. Ward, College of Education.

MAINE

University of Maine at Portland-Gorham, Gorham, Maine 04038; *Madison Mathematics;* summer: 4 weeks, June 23—July 18, 1975; academic year 1975-76: 7 meetings in each of three districts; 36 teachers and principals from School Administrative Districts #55, #57, and #72. Dr. Richard O. Kratzer, Department of Mathematics and Computer Science.

MARYLAND

Hood College, Frederick, Maryland 21701; *Science Curriculum Improvement Study (SCIS), Elementary Science Study (ESS);* summer: 4 weeks, June 30—July 25, 1975; academic year 1975-76: 4 meetings; 35 elementary school teachers and administrators from Frederick County. The project will continue the implementation of SCIS

and selected ESS materials within Frederick County Open-Space schools. Dr. Dean A. Wood, Department of Education.

University of Maryland Baltimore County, Baltimore, Maryland 21228; *Elementary Science Study (ESS) with Selections from Science Curriculum Improvement Study (SCIS), Conceptually Oriented Program in Elementary Science (COPES), Science—A Process Approach (S-APA), Minnesota Math and Science Teaching (MinneMAST)*; summer: 4 weeks, July 7—August 1, 1975; academic year 1975-76: 5 meetings; 78 teachers from the Baltimore County School System. During the summer, 26 teachers will receive instruction in two upper-level grades including leadership training and experience in managing equipment and supplies. An additional 52 teachers will receive training for implementation of units at their own grade levels. Dr. Homer W. Schamp, Jr., Division of Education.

MASSACHUSETTS

Suffolk University, Boston, Massachusetts 02114; *Science Curriculum Improvement Study (SCIS)*; academic year 1975-76: 28 meetings; 60 elementary school teachers, grades 1-5, from Boston Public Schools. Dr. Arthur J. West, II, Department of Biology.

Westfield State College, Westfield, Massachusetts 01085; *Elementary Science Study (ESS), Science Curriculum Improvement Study (SCIS)*; summer: 3 weeks, August 4 – August 22, 1975; academic year 1975-76: 15 bi-weekly meetings; 170 administrators (one day August, one day January) and teachers from Westfield, Ludlow, Springfield, South Hadley, Wilbraham, and Longmeadow, Massachusetts and Enfield, Connecticut. Participants will receive training in ESS and/or SCIS and encouragement to individualize materials for use in their own classrooms. A resource center for these teacher-developed items will be established at Westfield State College for use by all area teachers. Professor J. Kenneth Taylor, Department of Biology.

Worcester State College, Worcester, Massachusetts 01602; *Science Curriculum Improvement Study (SCIS)*; summer: 3 weeks, June 30—July 18, 1975; academic year 1975-76: 10 meetings; 30 teachers and administrators from the public and parochial schools of Worcester, and the public schools of Ayer and Shrewsbury. Professor Michael A. Burke, Department of Education.

MICHIGAN

Eastern Michigan University, Ypsilanti, Michigan 48197; *Selections from Madison Project Mathematics, Nuffield Foundation Mathematics Project and Unified Science and Mathematics for the Elementary School (USMES);* summer: 3 weeks, June 16—July 4, 1975; academic year 1975-76: 15 meetings; 39 teachers, grades K-8, from Ypsilanti Public Schools. Dr. Donald A. Buckeye, Department of Mathematics.

Michigan State University, East Lansing, Michigan 48824; *Science—A Process Approach (S-APA);* summer: 2 weeks, August 11—August 22, 1975; academic year 1975-76: 5 two-day sessions; 40 teachers, grades 4-6, from Saginaw Public Schools. Dr. Bruce D. Cheney, Science and Mathematics Teaching Center.

Western Michigan University, Kalamazoo, Michigan 49001; *Science Curriculum Improvement Study (SCIS);* summer: 4 weeks, July 28—August 22, 1975; academic year 1975-76: 3 meetings; 80 school personnel from the Kalamazoo Public Schools. The project is designed to implement SCIS into grades 4-6 of the Kalamazoo Schools and provide a plan for maintaining and distributing living organisms. Dr. Phillip T. Larsen, College of General Studies.

MINNESOTA

University of Minnesota, Minneapolis, Minnesota 55455; *Unified Science and Mathematics for Elementary Schools (USMES);* summer: 5 weeks, June 9—July 11, 1975; 72 teachers and administrators from St. Paul, Edina, Owatonna, and 9 teacher-administrator teams chosen from other Minnesota school districts. Dr. Arthur E. Ellis, Department of Curriculum and Instruction.

St. Cloud State College, St. Cloud, Minnesota 56301; *Our Working World;* summer: 10 weeks, June 9—August 15, 1975; academic year 1975-76: 36 meetings; 74 teachers and administrators from Alexandria Public School System, District 206. The program is designed to assist six elementary schools with their efforts to implement the *Our Working World* elementary (K-6) social studies curriculum. The program involves systematic examination and a pilot-trial of the new materials in the target schools. Dr. Andrew T. Nappi, Center for Economic Education.

MISSISSIPPI

Alcorn State University, Lorman, Mississippi 39096; *Science Curriculum Improvement Study (SCIS);* summer: 4 weeks, July 14—August 8, 1975; academic year 1975-76: 4 meetings; 30 elementary school teachers and administrators from Vicksburg Public School System. Dr. Norris Allen Edney, Department of Biology.

Mississippi Valley State University, Itta Bena, Mississippi 38941; *Social Science Laboratory Units;* summer: 6 weeks, June 9—July 18, 1975; academic year 1975-76: 12 meetings; 40 elementary teachers from Holmes, Humphrey, Leflore and Washington Counties. Professor Raksha Sethi, Department of Social Science.

University of Southern Mississippi, Hattiesburg, Mississippi 39401; *Science Curriculum Improvement Study (SCIS);* summer: 3 weeks, June 9—June 27, 1975; academic year 1975-76: 10 meetings; 30 elementary teachers and principals from Meridian Public Schools. Dr. Iva Brown, Department of Science Education.

University of Southern Mississippi, Hattiesburg, Mississippi 39401; *Individualized Science (IS);* summer: 2 weeks, June 16—June 27, 1975; academic year 1975-76: 10 meetings; 60 elementary teachers from the Choctaw Indian Agency, Bureau of Indian Affairs, Philadelphia, Mississippi. Dr. Bobby E. Craven, Department of Science Education.

MISSOURI

University of Missouri-St. Louis, St. Louis, Missouri 63121; *Science: A Process Approach (S-APA II);* summer: 1 week for administrators, June 16—June 19, 1975; 2 weeks for teachers, June 20—July 3, 1975 or July 7—July 18, 1975; academic year 1975-76: 6 meetings; 76 teachers and administrators, grades 3 and 4 from Pattonville R-3 School District. Dr. Doris A. Trojcak, Department of Childhood Education.

NEBRASKA

Kearney State College, Kearney, Nebraska 68847; *Elementary Science Study (ESS), Science - A Process Approach (S-APA II);* summer: two 2-week sessions, May 29—June 6, June 9—June 20, 1975; academic year 1975-76: 4 meetings; 70 teachers from Educational Service Unit 10. Dr. Roger L. Carlson, Department of Physical Science.

University of Nebraska at Omaha, Omaha, Nebraska 68101; *The Arithmetic Project;* summer: 3 weeks, July 21—August 8, 1975; academic year 1975-76: 3 Saturday conferences; 60 teachers and supervisors, grades 3-6, from Omaha Public Schools, Omaha Catholic Schools and schools served by ESU #3-OSACS Science Center and ESU #2. Dr. Barbara Hancock, Department of Mathematics.

NEW JERSEY

Trenton State College, Trenton, New Jersey 08625; *Science Curriculum Improvement Study (SCIS);* summer: 3 weeks, July 7—July 25, 1975; academic year 1975-76: 6 meetings; 72 teachers, grades 1-3 and principals from Trenton Public Schools. Dr. Fred T. Pregger, Department of Physics.

NEW YORK

State University of New York at Albany, Albany, New York 12222; *Science - A Process Approach (S-APA);* summer: 1 week, August, 1975; academic year 1975-76: 6 meetings; 40 elementary teacher leaders from South Colonie Central School. Dr. Ted Bredderman, Department of Curriculum and Instruction.

Hofstra University, Hempstead, New York 11550; *Science Curriculum Improvement Study (SCIS);* academic year 1975-76: 30 meetings; 96 teachers and administrators from Glen Cove, Farmingdale, Shelter Island, Wantagh, and SD #26 Queens. Dr. Esther B. Sparberg, Department of Chemistry.

Hofstra University, Hempstead, New York 11550; *Science Curriculum Improvement Study (SCIS);* summer: 3 weeks, July 14—July 31, 1975; academic year 1975-76: 24 meetings; 35 teachers, administrators, science or curriculum specialists, and college personnel from Valley Stream, Lawrence, Hewlett-Woodmere, Oceanside, Board of Cooperative Educational Services (BOCES). Dr. Jerome J. Notkin, Department of Science Education.

Syracuse University, Syracuse, New York 13210; *Science Curriculum Improvement Study (SCIS);* summer: 2 weeks, July 8—July 18, 1975; academic year 1975-76: meetings; 43 teachers (summer), 92 teachers (academic year) from Baldwinsville, Binghamton, West Genesee, and Syracuse School Districts. Dr. Larry E. Schafer, Department of Science Teaching.

NORTH DAKOTA

University of North Dakota, Grand Forks, North Dakota 58201; *Elementary Science Study (ESS);* summer: 2 weeks, June 16—June 27, 1975; academic year 1975-76: 18 meetings; 24 elementary teachers, principals, and parents from Devils Lake Public School District. Leadership teams from three target elementary schools will be trained in the process of the *Elementary Science Study* curriculum. Each team is comprised of six elementary teachers (grades 1-6), one parent, and the building principal. Dr. Elmer Schmiess, Center for Teaching and Learning.

OHIO

University of Akron, Akron, Ohio 44325; *Elementary Science Study (ESS);* summer: 2 weeks, June 23—July 3, 1975; academic year 1975-76: five in-service sessions per district; 60 elementary teachers and supervisors from Coventry School District, Nordonia Hills School District, and Revere School District. Dr. H. Gene Christman, Department of Elementary Education.

Miami University, Oxford, Ohio 45056; *Developing Mathematical Processes (DMP);* summer: 4 weeks, July 21—August 15, 1975; academic year 1975-76: 20 meetings plus classroom observations; 67 teachers, administrators, and supervisors from Cincinnati Public Schools. Dr. James B. Wesson, Department of Teacher Education.

Miami University, Oxford, Ohio 45056; *Science Curriculum Improvement Study (SCIS);* summer: 2 weeks, June 16—June 27, 1975; academic year 1975-76: meetings and classroom visitations; 95 teachers and administrators from Clermont County. Dr. Richard W. Moore, Department of Teacher Education.

Ohio State University, Columbus, Ohio 43210; *Science Curriculum Improvement Study (SCIS);* summer: 4 weeks, primary teachers: June 16—July 10, intermediate teachers: June 30—July 23, 1975; academic year 1975-76: weekly consultation; 66 teachers and principals from central Ohio. Provisions of this program provide SCIS in-service training for two target populations in the Scioto-Darby Public Schools: (1) a cadre of teacher-leaders and elementary principals and (2) elementary classroom teachers implementing the SCIS curriculum. Other features of this program include "live-in" consultants during the implementation year; a two-year research program to assess parameters of teacher change and

success in utilizing SCIS associated with perception and with cognitive style, and implementation of SCIS associated with perception and with cognitive style, and implementation of SCIS special education classes. In addition this program will provide a dissemination function to three other central Ohio school districts in the process of making elementary science curriculum decisions. Dr. Marlin L. Lanquis, Department of Early and Middle Childhood Education.

Xavier University, Cincinnati, Ohio 45207; *Science Curriculum Improvement Study (SCIS)*; summer: 3 weeks, August 4—August 22, 1975; academic year 1975-76: 5 bi-monthly meetings, 2 week-end conferences, 14 in-service meetings; 50 teachers and principals/instructional leaders from Greenhills-Forest Park, Cincinnati, Northwest Local, Reading, Princeton, the Archdiocese of Cincinnati, and the Diocese of Covington, Kentucky. Dr. Napoleon Bryant, Jr., Department of Education.

PENNSYLVANIA

Carlow College, Pittsburgh, Pennsylvania 15213; *Science - A Process Approach (S-APA II)*; summer: 1 week, June 16—June 20, 1975; academic year 1975-76: 6 meetings plus school visitations; 55 teachers from Freedom Area, Moon Area, North Allegheny, Shaler Area Schools. Dr. William A. Uricchio, Department of Biology.

Elizabethtown College, Elizabethtown, Pennsylvania 17022; *Science—A Process Approach (S-APA II)*; summer: 1 week, August 25—August 29, 1975; academic year 1975-76: 5 meetings; 49 teachers, grades 3-4, from Lebanon City and Cornwall-Lebanon Districts. Dr. Robert E. Ziegler, Department of Education.

Temple University, Philadelphia, Pennsylvania 19122; *Minnesota Mathematics and Science Teaching Project (MinneMAST)*; summer: 3 weeks, August 4—August 22, 1975; academic year 1975-76: 4 meetings; 90 elementary school teachers from School District of Philadelphia. Dr. David L. Fitzgerald, Department of Curriculum and Instruction.

SOUTH CAROLINA

University of South Carolina Coastal Carolina Regional Campus, Conway, South Carolina 29526; *Science Curriculum Improvement Study (SCIS), Elementary Science Study (ESS), Science—A Process Approach (S-*

APA II); summer: 5 weeks, June 2—July 2, 1975; academic year 1975-76: classroom visitations; 30 teachers and administrators from Areas I, II, and III of Horry County Public Schools. Dr. Henry G. Walding, Department of Education.

SOUTH DAKOTA

Augustana College, Sioux Falls, South Dakota 57102; *Arithmetic Project, Madison Mathematics Project, Nuffield Mathematics Project, Developing Mathematical Processes (DMP), JeffCo Mathematics Project, Cuisenaire Materials*; summer: 4 weeks, June 9—July 3, 1975; academic year 1975-76: one two-day meeting during the fall term; 35 elementary teachers from Bureau of Indian Affairs Schools in North and South Dakota served by the Aberdeen, South Dakota Area Office. Dr. Verlyn L. Lindell, Department of Mathematics.

TENNESSEE

Christian Brothers College, Memphis, Tennessee 38104; *Unified Science and Mathematics for Elementary Schools (USMES)*; summer: 2 weeks, July 14—July 24, 1975; academic year 1975-76: 32 meetings—6 utilization meetings, 26 dissemination meetings; 572 elementary teachers (52 trained as teams, 520 trained with in-service workshops) from Shelby County and Memphis. Teams of teachers will be trained to implement USMES materials and to manage workshops through a summer workshop and academic year meetings. An additional 520 teachers will be trained through 26 mini-workshops by teacher teams and curriculum specialists. Brother Edward Doody, FSC, Division of Science and Mathematics.

University of Tennessee at Chattanooga, Chattanooga, Tennessee 37401; *Science—A Process Approach (S-APA II)*; summer: 3 weeks, June 13—July 3, 1975; academic year 1975-76: group meetings and school visitations; 40 teachers and administrators from Whitfield County, Georgia Schools. Dr. Bernard Benson, Department of Education.

TEXAS

North Texas State University, Denton, Texas 76203; *Elementary Science Study (ESS)*; summer: 2 weeks, June 2—June 13, 1975; academic year 1975-76: 9 meetings; 35 principals and teachers, grades 4-6, from Denton In-

dependent School District. Dr. Paul J. Cowan, Department of Education.

West Texas State University, Canyon, Texas 79016; *Minnesota Math and Science Teaching (MinneMAST) Program;* summer: 6 weeks, June 2—July 11, 1975; academic year 1975-76: 3 meetings; 28 elementary teachers, grades 1-3, and principals from Amarillo, Canyon, and Hereford School Districts. Dr. Hollis L. Cook, Department of Mathematics.

VIRGINIA

Madison College, Harrisonburg, Virginia 22801; *Elementary Science Study (ESS), Science Curriculum Improvement Study (SCIS);* summer: 2 weeks, June 16—June 27, 1975; 33 elementary teachers and supervisors from Harrisonburg Public Schools. Dr. H. Kent Moore, Department of Physics.

Virginia State College, Petersburg, Virginia 23803; *Elementary Science Study (ESS);* summer: 4 weeks, June 23—July 11, 1975; academic year 1975-76: 8 meetings; 40 elementary teachers from Richmond Public Schools. Dr. William C. Brewington, Department of Science Education.

WASHINGTON

Evergreen State College, Olympia, Washington 98505; *Science - A Process Approach (S-APA);* summer: 2 weeks, June 9—June 20, 1975; academic year 1975-76: 4 meetings plus in-school visitations and consultations; 48 in-service and pre-service school teachers and principals from Olympia Public Schools. Implementation of S-APA will be effected during the school year with pre-service teachers acting as resource aides to the classroom teachers. Dr. Donald G. Humphrey, Member of the Faculty (Biology).

Washington State University, Pullman, Washington 99163; *Science Curriculum Improvement Study (SCIS), Elementary Science Study (ESS);* summer: three 2-week sessions, June 16—August 15, 1975; academic year 1975-76: 12 follow-up meetings first semester; 150 elementary principals, teachers, and paraprofessionals from School District No. 81, Spokane. Dr. David R. Stronck, Department of General Biology.

Western Washington State College, Bellingham, Washington 98225; *Science Curriculum Improvement*

Study (SCIS); summer: 2-one-week sessions, June 13—June 30, 1975; academic year 1975-76: 14 meetings; 50 teachers from Oak Harbor School District. Dr. Lee A. Dallas, Department of Education.

Western Washington State College, Bellingham, Washington 98225; *Science Curriculum Improvement Study (SCIS)*; spring 1975: 12 meetings; academic year 1975-76: 4 meetings; 39 teachers from Arlington School District. Dr. Lee A. Dallas, Department of Education.

WEST VIRGINIA

West Virginia University, Morgantown, West Virginia 26506; *Experiences in Mathematical Ideas*; summer: 3 weeks, June 16—July 4, 1975; academic year 1975-76: 11 meetings; 90 5th and 6th grade teachers from Berkeley County, Cabell County, and Mineral County Public Schools. Dr. Alonzo F. Johnson, Department of Mathematics.

West Virginia University, Morgantown, West Virginia 26506; *Experiences in Mathematical Ideas*, summer: 4 weeks, June 17—July 16, 1975; academic year 1975-76: 16 meetings; 25 teachers, grades 3-5, from Preston County Schools. Dr. Boyd Holtan, Department of Curriculum and Instruction.

WISCONSIN

University of Wisconsin-Stevens Point, Stevens Point, Wisconsin 54481; *Elementary Science Study (ESS)*; summer: 4 weeks, June 9—July 4, 1975; academic year 1975-76: 8 meetings; 35 elementary teachers, grades 5-6, from the Stevens Point School District. Dr. Roger L. Wood, School of Education.

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